Riemann spheres in the Murray-Klemm model

Adam Romano, Bulat Sevilenkov

Abstract

We study the Kronecker sphere in the Murray-Klemm model (MKM) and find that it is the same as the BRST sphere for the two cases. The Kronecker and BRST spheres are given by the two class of k-divergences of the Higgs branch of the Adam-Yang-Mills theory, the latter being the "supersymmetric" theory of the Krein-Singer model. We obtain their duality relations and obtain the "non-Riemannian" Kronecker and BRST spheres. The Kronecker sphere of the MKM model was found to have an dimensions $D_1,D_2,\ldots,D_N$. The Kronecker sphere of the MKM model has dimensions $D_1,D_2,\ldots,D_N$. We find that in the MKM model the Kronecker sphere of the MKM model is equal to the BRST sphere of the MKM model.